

LISTING OF CLAIMS

1. (Previously Presented) A process for the conversion of an olefin in a reactor, wherein the conversion is the oligomerisation of at least one olefin selected from the group consisting of ethylene, propylene, butenes and amylenes to produce C6 to C15 olefins, the process comprising continuously passing a feed comprising an olefin and water through a bed of zeolite catalyst under conversion conditions to form a conversion product, wherein the water content of the feed is from 450 to 800 wt ppm during the initial phase of the process of conversion and the latter phase of the process of conversion is from 250 to 400 wt ppm.
2. (Original) The process according to claim 1 in which the water content of the feed is automatically controlled according to an analysis of the composition of the reaction feed.
3. (Original) The process according to claim 2 comprising introducing water into the feed by a water wash.
4. (Original) The process according to claim 3 comprising coalescing the wash water before it is passed to the reactor.
5. (Original) The process according to claim 1 wherein the water content of the feed is controlled by at least one method selected from the group consisting of (a) introducing water into the feed, (b) drying the feed and (c), in the case where a water wash is used, adjusting the temperature of the water wash.
6. (Original) The process according to claim 2 wherein an on-line analyser is provided to determine the composition of the reaction feed as it is fed to the reactor.
7. (Original) The process according to claim 2 in which the analysis of the reactor feed also includes a measure of the concentration of oxygenated components.
8. (Previously Presented) The process according to claim 1 in which the conversion products are separated from unreacted olefins.

9. (Previously Presented) The process according to claim 8 in which the unreacted olefins are recycled to the reactor.
10. (Original) The process according to claim 1 in which the conversion is performed in a tubular reactor.
11. (Original) The process according to claim 1 in which the conversion is performed in a chamber reactor.
12. (Cancelled)
13. (Original) The process according to claim 1 which comprises the oligomerisation of a mixture of C3 and C4 olefins.
14. (Cancelled)
15. (Cancelled)
16. (Previously Presented) The process according to claim 1, wherein the conversion products are desulphurised.
17. (Cancelled)
18. (Previously Presented) The process according to claim 1 wherein the conversion conditions include a temperature from about 110°C to about 310°C.
19. (Previously Presented) The process according to claim 1 in which the catalyst further comprises a solid phosphoric acid.
20. (Original) The process according to claim 19 wherein the conversion conditions include a temperature from about 200°C to about 300°C.
21. (Cancelled)
22. (Previously Presented) The process according to claim 1, wherein the feed comprises from about 35 to about 60 vol % of the olefin.